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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,257	03/17/2005	Tong Huang	24429.PCT.US	4142
20551	7590	09/08/2006		
THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070				
			EXAMINER GUIDOTTI, LAURA COLE	
			ART UNIT	PAPER NUMBER

1744

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/528,257

Applicant(s)

HUANG, TONG

Examiner

Laura C. Guidotti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 08182005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. See Page 1 Line 15 of Specification, Chinese Patent Application Number 00800767.5. Is this Chinese Patent Application Number also CN 1302182?

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the through hole(s) (Claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 4 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.

4. Claims 1-4 are objected to because of the following informalities:

Claim 1 Lines 7-8 recite "...said upper cover having at least one through *holes*..." It appears that "holes" is a typographical error, and that the singular form "hole" is what the Applicant intends.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Again, as stated above, Claim 1 Lines 7-8 recite "...said upper cover having at least one through *holes*..." It appears that "holes" is a typographical error, it is believed that the singular form "hole" is what the Applicant intends. However, Claim 2 recites the limitation "said through holes" in each of Lines 2-3. There is insufficient antecedent basis for this limitation in the claim. It is confusing as to whether there is *at least one* or *more than one* through hole required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanson, US 6,634,052 in view of Tsui, US 6,206,978.

Hanson discloses the claimed invention including an upper cover (where 26 is placed) with an air chamber (chamber within 10, Column 2 Lines 55-58; or gas filled pouch, Column 6 Lines 10-14), the upper cover being attached tightly to a bottom cover (16; Column 2 Lines 55-58), the bottom cover having a cleaning material layer attached underneath (18, 20; Column 1 Lines 66-67), and an inner cover with a magnet (24) located therein being provided inside the air chamber (the inner cover is the socket

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housing, flanges, or other protrusions, Column 2 Lines 44-50; not shown), the inner cover being attached to the bottom cover while isolated from the air chamber (when the inner cover is the socket for receiving 24), and that the upper cover has at least one through hole for adjusting the air volume of the air chamber (the through hole is the entire hole or opening where removable door 26 covers and is capable of adjusting the air volume remained in the chamber). Hanson does not disclose that the bottom cover has at least one convex edge.

Tsui teaches an aquarium tank cleaner (58) that is buoyant due to a float (73) and has a convex edge (70) in order to easily clean the inner surface of an aquarium tank as the cleaner can go from one inner face of the tank to the adjacent inner face and also cleans the inner corner with greater ease (Column 4 Lines 15-34).

It would have been obvious for one of ordinary skill in the art to modify an edge of the device of Hanson to be convex, as Tsui teaches, in order to more easily clean inner corners of tank aquarium walls and so that a user can easily go from cleaning one inner face to the next inner face without a corner surface interruption.

***Allowable Subject Matter***

7. Claims 2-3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

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None of the prior art made of record includes a device comprising an upper cover with an air chamber, the upper covering being attached tightly to a bottom cover, the bottom cover having a cleaning material layer attached underneath, an inner cover with a magnet located therein being provided inside the air chamber, said inner cover being attached to the bottom cover while isolated from the air chamber, said bottom cover having at least one convex edge, and said upper cover having at least one through hole for adjusting the air volume in the chamber; *and* wherein through holes connect an inside and an outside of the air chamber, the through holes being provided with a sealing pad and a knob *or* wherein a magnet is provided inside the inner cover, the magnet being located in the convex/concave edge of the bottom cover and being pressed by an iron pad, a sponge pad being used to press the magnet and the iron pad, such that the magnet is fixed to the convex/concave edge between the inner cover and the bottom cover.

It is noted that US 6,206,978 to Tsui (discussed previously above) further includes a spacer 63 and a "metal pad" 62 positioned between a bottom cover and the magnet 60 in order to increase the magnets' magnetic force (Column 3 Lines 63-67). Similarly, US 5,510,570 to Muscroft includes a magnet 6 that is pressed with a "metal pad" 5 so as to have a greater magnetic flux density or "pullpower" (Column 3 Lines 13-15).

US 6,348,104 to Bakker is further noted as it has an upper cover (3) with an air chamber that is attached tightly to a bottom cover (4; Column 4 Lines 13-17), the bottom cover having a cleaning material layer attached underneath (10), and a magnet (6)

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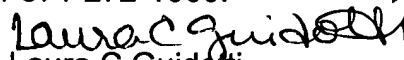
located in an inner cover (5), however the inner cover is not isolated from an air chamber.

**Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Laura C Guidotti  
Patent Examiner  
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